

What is claimed is:

1. A vacuum ultraviolet radiation excited light-emitting device comprising a discharge space filled with a rare gas between a front faceplate and a rear faceplate, and a fluorescent material layer provided on the front faceplate, the fluorescent material layer having a thickness of not more than about 7  $\mu\text{m}$ .

2. The vacuum ultraviolet radiation excited light-emitting device according to claim 1, further comprising a fluorescent material layer on the rear faceplate.

3. The vacuum ultraviolet radiation excited light-emitting device according to claim 2, which is a rare gas lamp.

4. The vacuum ultraviolet radiation excited light-emitting device according to claim 3, wherein the fluorescent material layer on the rear faceplate has a thickness of not less than about 30  $\mu\text{m}$ .

5. The vacuum ultraviolet radiation excited light-emitting device according to claim 2, which is a plasma display panel.

6. The vacuum ultraviolet radiation excited light-emitting device according to claim 5, wherein the fluorescent material

layer on the rear faceplate has a thickness of not more than about  $20\mu\text{m}$ .

7. The vacuum ultraviolet radiation excited light-emitting device according to claim 1, wherein the fluorescent material
- 5 layer contains a fluorescent material having an average primary particle diameter of not more than about  $1\mu\text{m}$ .